

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A heat-sensitive lithographic printing plate comprising:

a support with a hydrophilic surface; and

an image-forming layer containing a microcapsule, a light-to-heat converting agent and a water-soluble compound,

~~wherein the microcapsule contains a reactive group containing hydrophobic compound, the water-soluble compound has a reactive group capable of reacting with the hydrophobic compound and the image-forming layer contains the water-soluble compound outside the microcapsule, the reactive group in the reactive group containing hydrophobic compound is an epoxy group or a vinyloxy group, and the reactive group in the water-soluble compound is an epoxy group or a vinyloxy group~~ wherein the image-forming layer contains the water-soluble compound outside the microcapsule and the microcapsule contains a reactive group-containing hydrophobic compound, the reactive group in the microcapsule is an epoxy group or vinyloxy group and the water soluble compound has at least two reactive groups capable of reacting with the hydrophobic compound in the molecule and the at least two reactive groups include a vinyloxy group.

2. (Cancelled).

3. (Currently Amended) A heat-sensitive lithographic printing plate comprising:

a support with a hydrophilic surface; and

an image-forming layer containing a microcapsule, a light-to-heat converting agent and a water-soluble compound,

~~wherein the microcapsule contains a reactive group-containing hydrophobic compound, the water-soluble compound has a reactive group capable of reacting with the hydrophobic compound and the image-forming layer contains the water-soluble compound outside the microcapsule, and each of the reactive group in the reactive group-containing hydrophobic compound and the reactive group in the water-soluble compound is a radical-polymerizable ethylenic-unsaturated group~~ wherein the image-forming layer contains the water-soluble compound outside the microcapsule and the microcapsule contains a reactive group-containing hydrophobic compound, the reactive group in the microcapsule is a radical polymerizable ethylenic unsaturated group and the water soluble compound has at least two reactive groups capable of reacting with the hydrophobic compound in the molecule and the at least two reactive groups include a vinyloxy group and a radical polymerizable ethylenic unsaturated group.

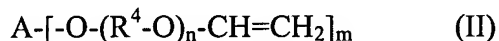
4. (Currently Amended) A heat-sensitive lithographic printing plate as-comprising:
a support with a hydrophilic surface; and
an image-forming layer containing a microcapsule, a light-to-heat converting agent and a water-soluble compound,

wherein the microcapsule contains a reactive group-containing hydrophobic compound, the water-soluble compound has a reactive group capable of reacting with the hydrophobic compound and the image-forming layer contains the water-soluble compound outside the

microcapsule, wherein the reactive group-containing hydrophobic compound has at least two reactive groups[~~[,]~~] and that include at least two vinyloxy groups in the molecule.

5. (Cancelled).

6. (Previously Presented) The heat-sensitive lithographic printing plate as described in claim 4, wherein the reactive group-containing hydrophobic compound is a vinyl ether group-containing compound represented by the following formula (II) or (III):



wherein A represents an m-valent saturated hydrocarbon group, aromatic hydrocarbon group or heterocyclic group, B represents $-\text{CO}-\text{O}-$, $-\text{NHCOO}-$ or $-\text{NHCONH}-$, R^4 represents a straight-chain or branched alkylene group containing 1 to 10 carbon atoms, n represents an integer of 0 to 10, and m represents an integer of 2 to 6.

7. (Original) The heat-sensitive lithographic printing plate as described in claim 1, wherein the reactive group-containing hydrophobic compound is a vinyloxy group-containing compound obtained by reaction of a active hydrogen-containing vinyloxy compound represented by the following formula (IV), (V) or (VI) with an isocyanate group-containing compound:



wherein R⁵ represents a straight-chain or branched alkylene group containing 1 to 10 carbon atoms.

8. (Previously Presented) The heat-sensitive lithographic printing plate as described in claim 4, wherein the reactive group-containing hydrophobic compound has at least two epoxy groups in the molecule.

9. (Previously Presented) The heat-sensitive lithographic printing plate as described in claim 4, wherein the reactive group-containing hydrophobic compound has at least two radical-polymerizable ethylenic unsaturated groups.

10. (Original) The heat-sensitive lithographic printing plate as described in claim 9, wherein the radical-polymerizable ethylenic unsaturated group includes at least one of an acryloyl, methacryloyl, vinyl and allyl group.

11. (Original) The heat-sensitive lithographic printing plate as described in claim 1, wherein the reactive group-containing hydrophobic compound is a glycidyl ether compound obtained by reaction of a polyhydric alcohol or polyhydric phenol with epichlorohydrin or prepolymer thereof.

12. (Cancelled)

13. (Currently Amended) The heat-sensitive lithographic printing plate as described in claim [[12]] 1, wherein the at least two reactive groups include a radical-polymerizable ethylenic unsaturated group.

14. (Cancelled)

15. (Currently Amended) The heat-sensitive lithographic printing plate as described in claim [[12]] 1, wherein the at least two reactive groups include an epoxy group.

16. (Original) The heat-sensitive lithographic printing plate as described in claim 1, wherein the water-soluble compound has at least one of an ethylene oxide chain and a propylene oxide chain in the molecule.

17. (Original) The heat-sensitive lithographic printing plate as described in claim 16, wherein the water-soluble compound has the at least one of an ethylene oxide chain and a propylene oxide chain in an amount of 1 to 40 units.

18. (Original) The heat-sensitive lithographic printing plate as described in claim 1, wherein the image-forming layer contains the water-soluble compound in an amount of 0.1 to 15 % by weight.

19. (Previously Presented) The heat-sensitive lithographic printing plate as described in claim 1, wherein the water-soluble compound has a molecular weight of 2,000 or below.

20. (Original) The heat-sensitive lithographic printing plate as described in claim 1, wherein the image-forming layer further contains a hydrophilic resin.

21. (Original) The heat-sensitive lithographic printing plate as described in claim 1, wherein the image-forming layer further contains a reaction accelerator capable of initiating or accelerating the reaction between the reactive groups of the hydrophobic compound and the water-soluble compound.

22. (Previously Presented) The heat-sensitive lithographic printing plate as described in claim 1, which further comprises an overcoat layer containing a water-soluble resin on the image-forming layer.